

Claims

[Claim 1]

A manufacturing method for Al-Mg-Si aluminum alloy sheets with excellent bake hardenability, characterized in that

(a) a molten Al-Mg-Si aluminum alloy comprising Mg: 0.3 – 1.0 wt%, Si: 0.3 – 1.5 wt%, Cu: 1.0 wt% or below (including 0%), Fe: 1.2 wt% or below (including 0%), and according to need, containing Mn: 0.1 – 0.7 wt% and/or Cr: 0.1 – 0.3 %, and the remnant being Al is twin belt cast at an average cooling rate of 20 degrees C per second or above at the time of solidification,

(b) at this time, the temperature of the ingot coming out of the casting machine is 250 degrees C or below,

(c) then, rolling is done to the final sheet thickness by only cold rolling, without homogenization or hot rolling,

(d) and solution treatment is done in a continuous annealing furnace.

[Claim 2]

A manufacturing method for Al-Mg-Si aluminum alloy sheet with excellent bake hardenability, characterized in that

(a) a molten Al-Mg-Si aluminum alloy containing Mg: 0.3 – 1.0 wt%, Si: 0.3 – 1.5 wt%, Cu: 1.0 wt% or below (including 0%), Fe: 1.2 wt% or below (including 0%), and according to need, containing Mn: 0.1 – 0.7 wt% and/or Cr: 0.1 – 0.3 %, and the remnant being Al is twin belt cast at an average cooling rate of 20 degrees C per second or above at the time of solidification,

(b) at this time, the ingot is cooled so that the ingot temperature is 250 degrees C or below within 2 minutes from pouring the molten metal into the casting machine,

(c) then, rolling is done to the final sheet thickness by only cold rolling, without homogenization or hot rolling,

(d) and solution treatment is done in a continuous annealing furnace.